

BOTANICAL NOTE

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How to Cite the Name of Miss Joaquim's Orchid

The national flower of Singapore, *Vanda* Miss Joaquim, was officially announced as such by the Minister of Culture on 16 April 1981. This hybrid, the first cultivated orchid hybrid recorded for Singapore, was selected from many other contenders because of its historical significance for Singapore plus the fact that it is easily grown, and well-known. This hybrid also stimulated the development of the presently thriving orchid industry in SE Asia and has been one of the favourites of orchid enthusiasts for decades.

Along with the development of the orchid industry and the development of many new hybrids, there has been an increasing amount of confusion concerning the technical details on how to properly cite these new creations.

Plant Names

In addition to common names, which are often variable and inconsistent, there are two more official and internationally recognized kinds of plant names viz. scientific or botanical names and the names of cultivated plants. It is generally understood that the scientific name of a plant consists of two Latin or Latinized words viz. a generic name and a specific epithet, in addition to the author's name (or names). For example, the scientific name of the para rubber tree is *Hevea brasiliensis* (Willd. ex A. Juss.) M.-A. *Hevea* (derived from the Brazilian name for these trees) is the generic name, *brasiliensis* (from Brazil), the specific epithet, and M.-A. is an abbreviation of the name of the botanist (author) who placed this species under *Hevea* (Jean Mueller of Aargau, a 19th century botanist). In addition to this, varieties and other subspecific taxa are also frequently used to delimit variation within a species, for example *Paphiopedilum stonei* (Hk. f.) Pfitz. var. *platytaenium* Rchb. f.

The names of cultivated plants are slightly different since many of them have artificial origins or cannot technically be considered as true species or varieties. Miss Joaquim's orchid can be used here as an example on nomenclatural propriety for cultivated plants. It has been suggested that this orchid is probably a natural hybrid (Yeoh, 1963) first occurring in Miss Agnes Joaquim's garden in Singapore in the latter years of the 19th century. In her garden two *Vanda* species, *Vanda hookerana* Rchb. f. (from Kinta Valley in the northern part of W. Malaysia) and *Vanda teres* Lindl. (from Burma) were planted and to this day it is not clear which one was the pod (female) parent. Botanically this orchid is known as an interspecific hybrid as there are two different parent species involved. The term *grex* (plural: *grexes*) is also used for such hybrids. In order to indicate the parentage of such an interspecific hybrid or *grex* it is customary to cite both parents' names, but place the pod plant's name first and to connect these two names with an "x", e.g. *Arachnis flos-aeris* x *A. hookerana*. Generally there are two ways to name such a hybrid plant. The first is to give a new specific epithet in Latin preceded by an "x", e.g. *Tilia* x *vulgaris*, a hybrid of two linden tree species viz. *Tilia cordata* Mill. and *T. platyphylla* Scop. The second, by far the more conventional way, is to give a common name, not a Latin one, to hybrid plants, e.g. *Arachnis* Maggie Oei, *Oncidium* Goldiana, etc.

H. N. Ridley (1893), then Director of the Singapore Botanic Gardens, reported and described Miss Joaquim's orchid in the *Gardeners' Chronicle* and named it as *Vanda* Miss Joaquim. To conform with the examples given by Brickell (1980) and Withner (1980) this hybrid should be written as *Vanda* (italicised or underlined when written or typed) Miss Joaquim (normal lettering).

Interspecific hybrids (grexes), such as *Vanda* Miss Joaquim, should technically be written as *Vanda* (Miss Joaquim g.), however the extra details of the parenthesis and "g." (grex) are usually omitted by horticulturists for simplicity. The author's name of these hybrids, in this case Mr. Ridley's, is always omitted.

The names of variant plants derived from a single individual, i.e. clones (cultivars) are written inside a pair of simple quotation marks, e.g. *Cattleya* Bow Bells 'Singapura' or by placing cv. (cultivar) before the name of the cultivar, e.g. *Phalaenopsis* Samba cv. Mamamia. The cultivar name, as with the name of the hybrid, is not underlined or printed in italics.

The following examples, in addition to those noted above, illustrate the proper manner in which various orchids should be written:

1. *Vanda hookerana* Rchb. f. (a species with author citation),
2. *Phalaenopsis amboinensis* J. J. S. 'Simanis' (cultivar of a species, the author citation of the species is often omitted by horticulturalists), and
3. *Aranda* How Yee Peng 'Ada' (a cultivar of an intergeneric hybrid under a collective generic name, technically written as X *Aranda*).

Legitimate Names

Species and varieties of orchids and other plants must be published with a Latin description in order to be botanically acceptable (legitimate). Hybrids and cultivars are also affected by the rules of botanical nomenclature since each hybrid or cultivar can have only one correct (legitimate) name (Gilmour, Greatwood, and Hunt; 1976 and Brickell *et al.*, 1980). Orchids, however, have received special attention from botanists and horticulturalists, thus the rules concerning these plants differ somewhat from those regarding others, e.g. other ornamentals, crop plants, fruit trees, etc. (Gilmour, Greatwood, and Hunt; 1976). Orchid hybrids and cultivars, for botanical and legal purposes, must have either published descriptions or approved registrations so that the names are legitimate.

The naming of hybrids and cultivars is sometimes also a legal process since these names are essentially trademarks and are often commercially valuable. The owners or registrants of these names must, therefore, properly register or publish descriptions of these hybrids or cultivars to attain botanical as well as legal recognition of these plants. The names of orchid hybrids and cultivars are, with a few exceptions, based on publication or registration priority; that is, the first valid publication or registration of a legitimate name has priority over all other names of the same hybrid or cultivar. Hybrid names proposed prior to 1 January 1967 are based on the earliest date of publication or registration, while after this date they are based on registration only. Cultivar names are based on publication priority only, that is, registration does not provide for botanical or legal legitimacy. Unfortunately, due to the enormous numbers of orchid cultivars produced, registration of all cultivars is impossible. Several schemes have been proposed to deal with this problem, however no satisfactory solution has been formulated and agreed on by the World Orchid Commission. It must be noted that

exceptions to these rules of priority can only be considered and resolved by the Royal Horticultural Society, London which is the International Registration Authority for Orchid Hybrids. The details of publication and registration are given by Gilmor, Greatwood, and Hunt (1976) and Brickell *et al.* (1980).

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Vanda Miss Joaquim, national flower of Singapore

Photo: David Lim